1947 MOUNT DIABLO W6CX AMATEUR RADIO CLUB WWW.MDARC.ORG

THE CARRIER

The monthly newsletter for the Mount Diablo Amateur Radio Club

Volume LXXV - Number 6 – June 2026

Friday June 19, 2026 7pm
Our Saviors Lutheran Church
1035 Carol Lane Lafayette
License Testing 5:30pm

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THIS MONTH

FIELD DAY ORGANIZING

Presented by Larry Loomer, KI6LNB

KI6LNB is our club's emergency coordinator and organizes the annual W6CX ARRL Field Day site and operations

The meeting will also be held virtually, via the Zoom video system. The meeting access ID and password will be distributed via groups.io email announcement.

We have many accomplished and experienced club members. After all, we are an ARRL Special Service Club! The club is looking for amateur radio or communications topics that you or someone you know could present at a future club meeting.

An alternative might be several short presentations on different topics made by multiple persons.

Please direct your suggestions to info@mdarc.org.

Your contribution is vital for the continued success of MDARC. We are eager to hear from you!

ALL MEMBERS ARE INVITED TO JOIN THE FREE CLUB E-MAIL GROUP AT:

https://groups.io/g/MDARC

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Mount Diablo Amateur Radio Club W6CX
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(925) 288-1730 info@mdarc.org

The Carrier is a monthly publication of the Mount Diablo Amateur Radio Club (MDARC). It is the policy of the editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio and of interest to MDARC members, and provided space is available.

President - Larry Bradley, KK6QPE
Vice President - Mark A. Cloud, W6SXA
Secretary – Brian Lotter, KM6NGS
Treasurer - Barbara Whysong, K6WHY
Emergency Coordinator - Larry Loomer, KI6LNB

Directors At Large
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Trevor Hall, WA6JAU
Cal Vasquez, K6VT
Mike Warren, W6MEW

Membership Chair – Jan Kulisek, KM6NFC
mdarcmembership@mdarc.org

PACIFICON

Chair: Julie Mah, WJ8MAH
Registration: Jim Marchetti, KD7G
Treasurer: Barbara Whysong, K6WHY
Secretary: Jeff Mah, N8MAH

COMMITTEE CHAIRS AND COORDINATORS

Annual Auction - **vacant**
Communications Trailer - Mike Warren, W6MEW
Communications Van MDARC-1 - Jim Tittle, K6SOE
Digital Media - Grant Bowman, K6CBK
Education & Training - **vacant**
Field Day - Larry Loomer, KI6LNB
Good & Welfare - Diana Sage, KA6TZU
Holiday Dinner - Misa Siemons, KJ6BUE
License Testing - Larry Loomer, KI6LNB
Outreach - Dick Wade, WM6G
Programs - Mark A. Cloud, W6SXA
Public Service - Larry Loomer, KI6LNB
Radio Equipment Lending - Cal Vasquez, K6VT
Refreshments - Elizabeth Styles, KG6HLV
Scholarship - Janice Fujii, KG6VTD
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Volunteer Classes - Dick Wade, WM6G
W6CX Repeater Trustee - Jim Tittle, K6SOE
W6LGW Callsign Trustee - Larry Loomer, KI6LNB

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Fred Coe, WB6ASU wb6asu@icloud.com

MDARC Family,
Okay, our newsletter editor N4DLA tells me it is again time for another monthly President's Message, so I've reached into my box of knowledge and pulled out my trusty Topic Spinner. I'll spin it five times and select that the 5th topic.
First Spin: A detailed discussion of the ionospheric plasma phenomenon.
Second Spin: Life and times of the ancient Etruscans circa 800 BCE.
Third Spin: The frequency of occurrence of the linguistic glottal stop in Classical Mayan.
Fourth Spin: Why do electromagnetic waves not travel at the speed of light---an exploration.

…..and the Fifth and Final Spin: **RF Exposure and a Lesson in Procrastination**

Up to and including the most recent edition* of the *ARRL Technician License Manual*, you will have read in Chapter Nine regarding RF Exposure:

Table 9.4
Power Thresholds for RF Exposure Evaluation

Band	*Power (W)*
160 meters	500
80	500
40	500
30	425
20	225
17	125
15	100
12	75
10	50
6	50
2	50
1.25	50
70 cm	70
33	150
23	200
13	250
SHF (all bands)	250
EHF (all bands)	250

"Before you start, check to see if your station is exempt from the evaluation requirement. If the transmitter power (using PEP) to the antenna is less than the levels shown in Table 9.4 on the frequencies at which you operate, then no evaluation is required! The FCC has determined that the risk of exposure from these power levels is too small to create an exposure risk. So, if you have a 25-watt VHF/UHF mobile rig or a 5-watt handheld transceiver, there's no need for an evaluation of any sort."
The ARRL Ham Radio License Manual . ARRL Kindle Edition. *5th edition

BUT…… on May 3, 2023 the FCC required new rules to be followed.

Those rules nullified the exemptions indicated in Table 9.4. The link below provides an informative discussion of the required changes, but in a nutshell, if you operate an amateur radio at any power level, you are now required to show that people and presumably animals are not exposed to the RF maximum power density (mW/cm2) as determined by the FCC.

Here is a link to an ARRL article that came out in May, 2023

"FCC Exposure Rules Soon to Affect Every US Radio Amateur"
https://www.arrl.org/files/file/Lab/RF Exposure/2023-05 Lapin FCC Exposure Rules.pdf

ARRL has other articles on RF Exposure that are also worth reading:

RF Exposure and You, book by Ed Hare, W1RFI
https://www.arrl.org/files/file/Technology/RFsafetyCommittee/RF+Exposure+and+You.pdf

"Understanding the Changes to the FCC RF Exposure Rules," by Ed Hare, W1RFI, *QST* September 2021
http://www.arrl.org/files/file/QST/This%20Month%20in%20QST/2021/09%20September%202021/HARE.pdf

(continued on following page)

Here is a key resource from ARRL that you can use to calculate the RF Exposure situation for your amateur radio operation: RF Exposure Calculator http://www.arrl.org/rf-exposure-calculator

Did I say procrastination? You bet. Shortly after May 2023 I was motivated to make those RF Exposure calculations for my situation and be in compliance with these latest FCC rules. I got off to an enthusiastic start….then rain out of gas. Even with the ARRL RF Exposure Calculator, I got bogged down with trying to "capture all the numbers." Things like…..

- Power at the antenna (Watts)
- Antenna gain (dBi) [hint: Gain (dBd=Gain (dBi) -2.15]
- Mode duty cycle
- Transmit duty cycle: minutes transmitting; minutes receiving
- And of course, the Operating Frequency (MHz)

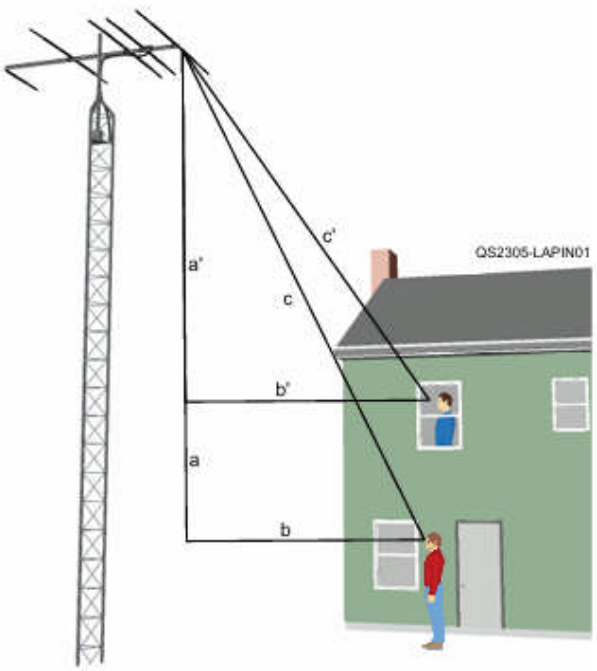
Even though the ARRL calculation sheet provided some useful hints where this information can be found, I found the task to be overly daunting. Result? I have procrastinated on completing this FCC required RF Exposure evaluation.

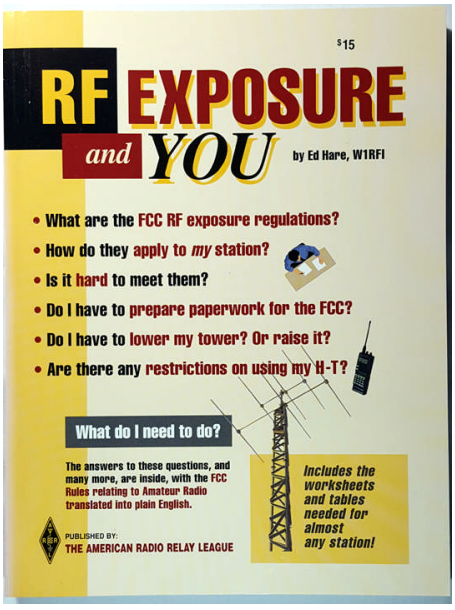
But as MDARC concluded our nine-week General License Course, the chapter of interest was Chapter 9 "Electrical and RF Safety." We reviewed again RF Exposure ….. and yes, this is really about Safety to yourself and others near you. This got me motivated and I began anew to complete this RF evaluation requirement.

Here are some takeaways that you might find helpful.

- Consider the worst-case scenario for the ARRL RF Exposure Calculator.
  - o Use your transceiver's advertised maximum power. Therefore, ignore power loss due to things like ground loss and coax.
  - o Use the worst case of transmit duty cycle. For example, if you know that in 30 minutes of operation, you usually transmit only 10 minutes of the time, consider changing it to 50-50 to increase the amount of time for transmitting.
- Consider the worst-case distance scenario for determining if you are in compliance (i.e. people are far enough from the antenna to receive less than the Maximum Power Exposure.)
  - o If your vertical antenna is elevated on a mast, consider using the distance from the base of the antenna to the closest point where a person might be sitting or standing.
  - o If it is inconvenient to lower vertical antenna on a mast in order to measure the height, consider leaving it in place and guessing on the low side (i.e. makes this closer to people)
  - o If using Horizontal antennas, use the closest point that could affect a person.
- Use the Pythagorean Theorem for finding the hypotenuse distance…distance to a person.

https://www.calculatorsoup.com/calculators/geometry-plane/pythagorean-theorem.php




$15
RF EXPOSURE
and YOU
by Ed Hare, W1RFI
• What are the FCC RF exposure regulations?
• How do they apply to my station?
• Is it hard to meet them?
• Do I have to prepare paperwork for the FCC?
• Do I have to lower my tower? Or raise it?
• Are there any restrictions on using my H-T?
What do I need to do?
The answers to these questions, and many more, are inside, with the FCC Rules relating to Amateur Radio translated into plain English.
Includes the worksheets and tables needed for almost any station!
PUBLISHED BY:
THE AMERICAN RADIO RELAY LEAGUE

(continued on following page)

So, my goal was to make certain I could answer this question: Are people, including myself, located at sufficient distance not to be exposed to the Maximum Power Density?

So, I was looking to see if my measured antenna-to-person distance exceeded the results from the ARRL RF Calculator. So, if the antenna-to-person distance is greater than the calculated distance amount, then I am operating in compliance with the FCC RF Exposure rule.

If less, then you can make some data input adjustment: fine-tune your power output to account for power losses; double-check your distance measurements; etc.
ARRL does have some guidelines to assist in this.

My recommendation is that if you are just at the allowable antenna-to-person distance, forget about figuring in the power losses and actual (measure) dBi antenna gain and consider these recommended changes: operate with a reduced transceiver output power, move the antenna away from people, elevate the antenna to increase the antenna-to-person distance, use fencing to restrict near access to the antenna.

Since I like using Excel, I used formulas to make the Pass/Not Pass evaluation and added screenshots from the RF Exposure Calculator as backup to what parameters I used.

Am I done with this project? No, but have completed this evaluation for operations in my ham shack for the bands I use for HF, VHF and UHF. I even evaluated a 50-watt GMRS transceiver and its dedicated antenna.

Next steps: evaluate several portable operation setups for 2 meters, 70 cm, and selected HF bands; evaluate mobile operation in my truck.

Results for a controlled environment:

Maximum Allowed Power Density (mW/cm^2):
Minimum Compliance Distance (feet):
Minimum Compliance Distance (meters):

For an uncontrolled environment:

Maximum Allowed Power Density (mW/cm^2):
Minimum Compliance Distance (feet):
Minimum Compliance Distance (meters):

Print Results

NOTICE
Radio Frequency fields beyond this point may exceed the FCC general public exposure limit.
Obey all posted signs and site guidelines for working in radio frequency environments.
In accordance with Federal Communications Commission rules on radio frequency emissions 47 CFR 1.1307(b)

But I am enthused about getting this completed.

73,
Larry Bradley, KK6QPE
President

$$ Donations $$

Donations by MDARC members and non-member supporters and by Pacificon enthusiasts are an important source of income for MDARC. Donations we receive support our Mt. Diablo repeaters, our MDARC operating expenses, license testing for candidates, and a number of Pacificon activities and operating expenses. We gratefully appreciate our generous donors!

Anyone who donated, any amount (even $5!), and who wants a receipt for their taxes, please send a request to treasurer@mdarc.org.

PACIFICON 2026 ANNOUNCEMENT

I am proud to announce that PACIFICON, the ARRL Pacific Division Convention, will be held October 16, 17, 18, 2026 again at the San Ramon Marriott Hotel, 2600 Bishop Drive, San Ramon, California.

On line registration opens on April 1, 2026 and closes at midnight on October 1, 2026.

https://www.pacificon.org/registration/attendees

Registration prices are the same as 2025. Enjoy the antenna seminar, lots of vendors with special deals, transmitter hunts, kit building and a variety of amateur radio forums.

73,

Jim Marchetti, KD7G
Registration and Marketing Chair
PACIFICON 2026

Saturday June 27, 2026 - Mount Diablo Amateur Radio Club Field Day in Concord. Amateur radio operators, "Hams" communicate by short wave radio with other hams for hobby AND for public service in times of disaster.

On June 27th and 28th all over America, 35,000 Hams will turn out for a nationwide "Field Day". YOU ARE INVITED to share in the experience as our radio operators contact other hams across the country and around the world.

JOIN IN to watch, listen, and actually talk on the radio. Send your name in morse code. Learn how you can become a ham radio operator. See how hams assist during disasters. It all starts at 11:00 am Saturday, June 27th and runs through 11am Sunday June 28th at Olympic High School**,** 2730 Salvio Street**,** Concord, CA.

For more information see https://www.MDARC.org/activities/field-day or contact Larry Loomer at laryloomer@yahoo.com.

Required RSVP for Saturday BBQ Dinner: https://signup.com/go/VfYMwEQ

Thanks to all of your help, ARRL Field Day 2025 was organized very smoothly. I am asking all to repeat your assignments for ARRL Field Day 2026. If you are able to do so, please confirm your assignments with me at the June 19 membership meeting. If you are unable to do so please let me know.

Dick Wade volunteered to staff the public information table and log visitors., volunteered to be a VE on Saturday and will provide a tall ladder to assist in the installation of the beam.

Jason Mah volunteered to provide security from 12M to 6 AM on Saturday morning and Sunday morning.

Ben Heathorn will find out if the Long Island CW Club will be participating with us this year. Ben will operate from the trailer and will help in getting the 3-element beam installed on the trailer mast.

The rotor and the antenna need to be brought from Rodie's locker.

John Kearney will bring his phone system.

(continued on following page)

Julie Mah has 6 pop-ups to provide and can supply tables and chairs.

Lowell Richards has put publicity onto the MDARC website.

Charles Henry will be bringing his solar trailer and his golf cart.

Lauren can supply chairs from his church. We can get chairs from Rodie's.

Larry Loomer has chairs to volunteer.

Sharky Turnbull has license testing and Pete Harris has the General License GOTA Class on Saturday.

John Rio Safety Officer and VE for Technicians

Others may provide operating equipment, furniture and duties for 2026 as you would wish to do so. Please let me know what you would like to do to add to this list..

73,

Larry Loomer, KI6LNB
MDARC Emergency Coordinator and ARRL Field Day Chair

Low-Cost Receivers for Digital Amateur Television Reception Available For Sale from Club Member KA3VDT

These are DVB-S2 receivers pre-programmed for our club's 1.2 GHz W6CX DATV repeater output frequencies

Connect a 1.2 GHz vertically-polarized directional antenna, aim it at Mount Diablo's North Peak and watch the over the air repeater signal on your video monitor

Please contact Will Roberts at ka3vdt@gmail.com or visit http://laser66.com/ham/

PUBLIC SERVICE EVENTS – 2026

To sign up for a MDARC public service event, go to https://www.mdarc.org/public service
Go down to the Volunteer Registration Form and enter your Information for each event.
To volunteer for events from other clubs, click the sign up link listed in the event notice.

———————————————————————————————————————

SFRC - San Francisco Marathon

Saturday July 25 and Sunday, July 26, 2026
Running race in San Francisco
Radio Coordinator: Larry Loomer, KI6LNB <laryloomer@yahoo.com>

LARK - Patterson Pass Road Race

Sunday August 2, 2026
Bicycle race in the East Livermore Hills
Radio Coordinator: John Street, wb6ety@sbcglobal.net
Sign up: https://www.signupgenius.com/go/10C0844AEAD28A6FA7-2022

MDARC - Skyline 50k

Sunday August 2, 2026
Running race in the Oakland Hills
Radio Coordinator: Larry Loomer, KI6LNB <laryloomer@yahoo.com>
Scena Performance: adam.ray@scenaperformance.com
https://www.scenaperformance.com/events/skyline-50k

MDARC - Moonlight on the Mountain

Saturday August 29, 2026
Fundraising catered dinner at Mount Diablo's China Wall in Alamo
Radio Coordinator: Larry Loomer, KI6LNB <laryloomer@yahoo.com>
https://www.savfemountdiablo.org 925-947-3535

MDARC - Dick Collins Firetrails

Saturday September 26, 2026
Running race in the Oakland Hills
Radio Coordinator: Larry Loomer, KI6LNB <laryloomer@yahoo.com>
Scena Performance: adam.ray@scenaperformance.com
https://www.scenaperformance.com/events/skyline-50k

MDARC - Mount Diablo Challenge

Sunday October 4, 2026
Bicycle race up Mount Diablo
Radio Coordinator: Larry Loomer, KI6LNB <laryloomer@yahoo.com>
https://strambecco.com/event/mt-diablo-challenge

MDARC - Move with MADD (NOTE: DURING PACIFICON)

Saturday October 17, 2026
Walk in Walnut Creek from Civic Park
(Contact information pending)

MDARC - Diablo Summit Stomp (NOTE: DURING PACIFICON)

Saturday October 17, 2026
Run from Castle Rock Park to Summit and Back
Radio Coordinator: Larry Loomer, KI6LNB <laryloomer@yahoo.com>
https://brazenracing.com/summitstomp

Repairing an Old Astron RS-20A Power Supply

Article and Photos By Matthew G. Vurek, N4DLA

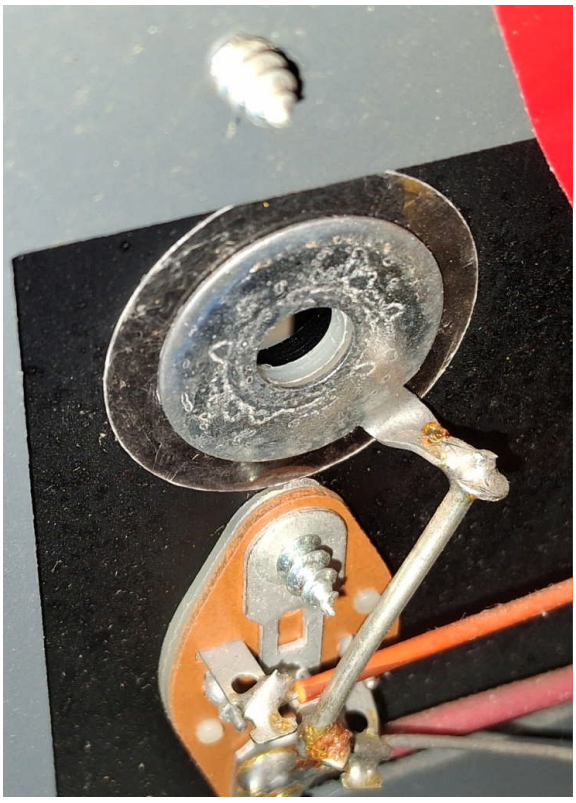
I own several 12 volt linear power supplies built by the Astron Corporation of Irvine, California. The company was founded in 1976 and their variety of 12 volt DC linear and switching power supplies are very popular with amateur radio operators. I purchased my first Astron linear power supply in 1996, an RS-35 that supplies up to 35 amps and it has been rugged and reliable. The one problem I had with it was the power on/off rocker switch wore out after about 25 years of regular use. Astron sells replacement switches so I purchased several and installed a new one in my RS-35. This power supply has worked fine since.

I recently purchased an Astron RS-20A 20 amp power supply at a local garage sale. It was missing its 5 amp AC line fuse. I replaced the fuse, plugged it in, turned it on and the AC line fuse immediately blew. I turned it off, replaced the fuse, turned the RS-20A back on and the fuse blew yet again. No wonder its sale price was so low!

Not wanting to sacrifice any more fuses, I removed the RS-20A's cover and inspected its interior. It had two large diodes, one above each transistor, on the heat sink on the back of its cabinet. The circuit board was dated 1977 (the year I received my Novice class amateur radio license) and it was assembled at Astron's previous location in Santa Ana. In 1999, I repaired former Orindan W6OVO's (SK 2001) newer RS-20A at his home in San Diego; I replaced a failed voltage regulator. However, I could not see a similar voltage regulator inside this older RS-20A nor did I see any evidence of component failure.

Perplexed, I enlisted the help of fellow W6CX DATV repeater user Jerry Rosicky, KB6T. He discovered one of the two large diodes on the RS-20A's heat sink had failed for unknown reason(s).

I unsoldered the failed diode and then unscrewed it, ensuring the metal and plastic washers remained on the heat sink. The diode was unmarked and I could not locate a schematic for this older RS-20A so I could not determine the diode's model number. I contacted Astron via their web page and received a quick response. The company asked for photo of the defective diode so I e-mailed it to them. After reviewing the photo, Astron identified the diode as a 1N1184A, which they sell. I immediately ordered a pair from the Astron website.



LEFT and BELOW: The failed diode. A 1/4 inch nut (not shown) holds the diode to the heat sink on the back of the cabinet.

FAR LEFT: The diode was removed from this hole on the back of the cabinet. Note the plastic and metal washers that go between the diode and the heat sink.

(continued on following page)

Upon receipt of a replacement 1N1184A diode, I soldered it to its wire connection and then attached it to the RS-20A's heat sink. I double-checked my solder work and then plugged it the power supply's AC line cord. I flipped its switch to "on" and, voila! The RS-20A came to life and did not blow its fuse! The red "on" light shone brightly on its gray cabinet. I checked its DC banana terminals and was greeted with around 14 volts on my Triplett voltmeter. I attached a 125 watt Amcomm HB-125 HF amplifier to the RS-20A. The repaired power supply easily powered the amplifier to full RF output, drawing about 10 amperes. Success!

I e-mailed Astron a message about my successful repair efforts on my aged RS-20A. I received the following reply from Collin Pochirowski, grandson of the late Bill Pochirowski, Astron's founder.

"Glad to hear you are up and running again! Thank you for the pictures. This power supply is from our first ever generation of the RS-20A, dating back to the 70s. It's great to see one still in service."

It is extremely gratifying to receive such a pleasant message from a manufacturer. These days, companies often discourage users from repairing old equipment and instead suggest buying a new product. In this instance, Astron is proud of the fact that they were able to help a user repair a product that was built shortly after the company was formed. It is a testament to the quality of Astron's products and their customer support.

NOTE:
In 2024, Ham Radio Outlet toured Astron's Irvine factory and posted their video, "Astron Power Supplies Factory Tour," on their YouTube channel at: https://www.youtube.com/watch?v=XVFcDFtHQYs

The replacement 1N1184A diode has been installed and soldered to the blue wire. The author holds the failed diode.

With its red "power on" light blazing, the power supply no longer blows its AC line fuse, thanks to the replacement 1N1184A diode. The RS-20A is back working as it did when it left the Astron factory back in the late 1970s. Then, as now, these power supplies are assembled by hand.

William Carpenter, WA6BC
Andy (Andrew) Coy, K6PEP
Creed Erickson, KO6MQK
James Farr, KO6NUO
Jamison Gleisner (license pending)
Timothy Kress, K6TJK
Stephen Pence, KO6GHD
Sam Schlegel, KO6HGT
David Tara, KN6NDT
Thomas Warren, KN6YWF

If you hear these new members on the air, please welcome them to our club.

—— *Jan Kulisek, KM6NFC, Membership Chair*

Mount Diablo Amateur Radio Club License Testing Dates/Locations

2026

6/19 Club Meeting: 1035 Carol Lane, Lafayette

MDARC will hold a license testing session at 5:30 PM, before the membership meeting, at our club's meeting site, Our Savior's Lutheran Church, 1035 Carol Lane, Lafayette

This is a walk-in session – no reservation necessary. All three license levels are available for testing. Volunteer examiners are standing by for immediate testing.

Your test score is available immediately upon completion of your test. You may take all three tests at one sitting if you would like to do so. Bring your driver's license, or two school-related forms of identification, and the $15 testing fee. If you choose to use a calculator, you must demonstrate that the memory is empty. Study Well.

6/27 Field Day Olympic High School, 2730 Salvio Street, Concord

7/17 Club Meeting: 1035 Carol Lane, Lafayette

8/11 Class: 1578 Kirker Pass Road, Clayton (Concord)

8/21 Club Meeting: 1035 Carol Lane, Lafayette

9/18 Club Meeting: 1035 Carol Lane, Lafayette

10/17, 10/18 Pacificon: 2600 Bishop Drive, San Ramon

11/20 Club Meeting: 1035 Carol Lane, Lafayette

12/19 1578 Kirker Pass Road, Clayton (Concord)

This QR code directs users to the ham study locator page for the 94549 zip code (https://ham.study/sessions/94549/inperson). Test candidates should review the list and find the MDARC session amongst the others listed.

1947
MOUNT DIABLO
W6CX
AMATEUR RADIO CLUB
WWW.MDARC.ORG

Get your first amateur radio license!
Attend the Mount Diablo Amateur Radio Club 2026 8-week Technician License class beginning June 16, 2026.
Share this flyer with your friends and family so they can get their ham radio license too.

Register now for the Following 2026 Amateur Radio Technician License Course

*** All 2026 License *Classes* are held via Zoom and simultaneously in-person at:**

Clayton Valley Presbyterian Church
1578 Kirker Pass Road
Clayton, CA 94517

*** A $15.00 course fee applies to each course.**

*** All classes are held Tuesday evenings 7:00 p.m. to 9:00 p.m.**

*** Follow the link below to complete the required registration**

Level 1 Technician License Course Registration

Tuesday evenings, June 16 – August 4, 2026 (8 Sessions)
and two Get-On-The-Air (GOTA) sessions.

GOTA #1 Tuesday, August 18, 2026; 7:00 - 9:00 PM via Zoom or in-person
GOTA #2 Tuesday, August 25, 2026; 7:00-9:00 PM **in-person only**.

The complete 2026 License course schedule and course details can be found at:

https://www.mdarc.org/education-and-testing/class-details

Announcing the 5th Annual
LEWIS & CLARK TRAIL ON THE AIR
Ham Radio Special Event

June 6, 2026, 00:00 UTC – June 21, 2026, 23:59 UTC

16 States – 30 Activating Clubs – 16 Days

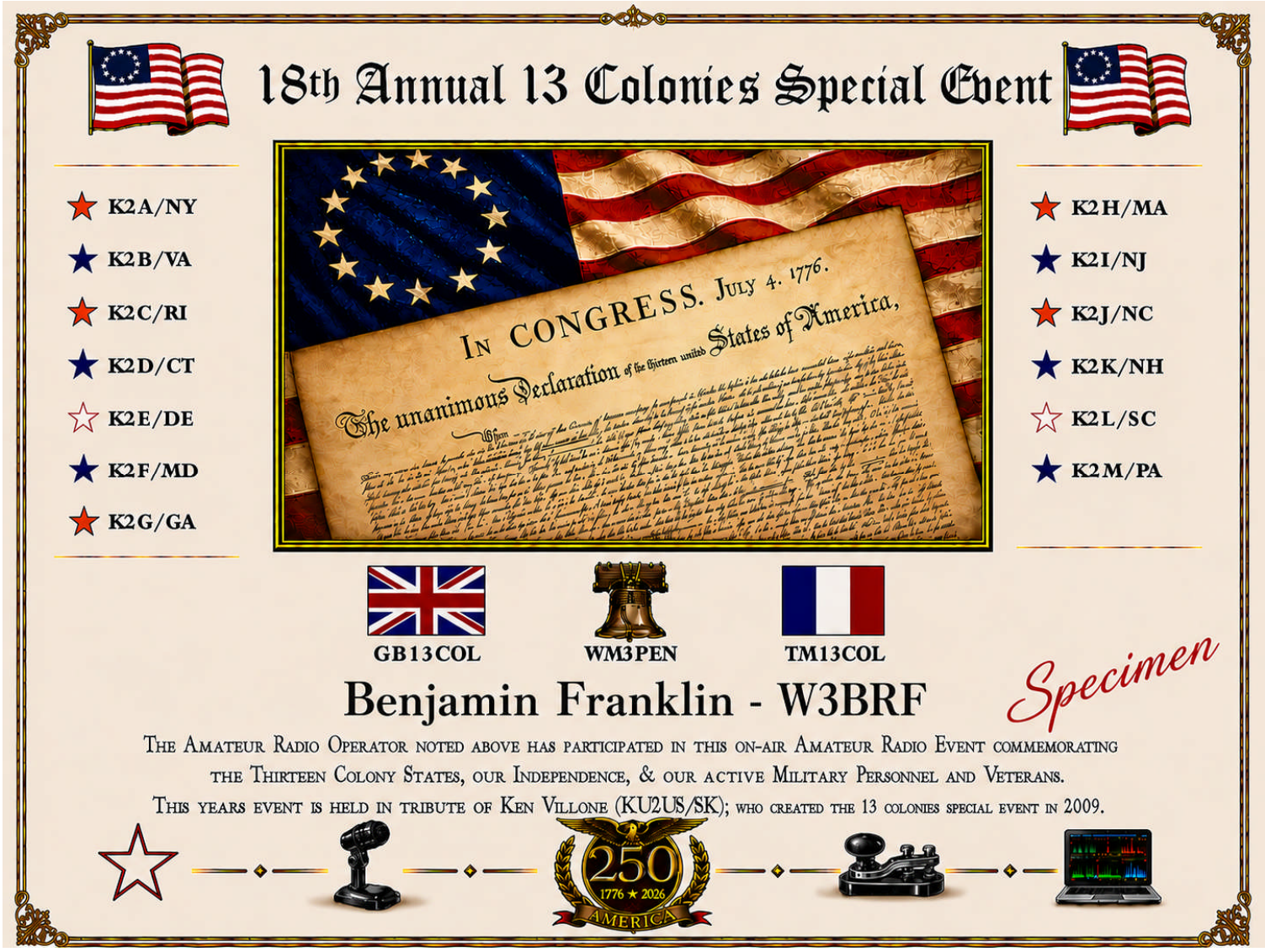
Certificates Available (for a nominal fee) **to Commemorate Your Radio Journey**

Meriwether Lewis

William Clark

Start Your Own Journey of Exploration at - https://lctota.org

Sponsored by the Clark County Amateur Radio Club – W7AIA– Vancouver, WA



2026 Event Dates / July 1 (6AM Pacific Time) to July 7 (9pm Pacific Time)
(July 1, 2026-1300 UTC to July 8, 2026-0400 UTC)

The 13 Colonies Special Event is a not-for-profit amateur radio event that commemorates the original 13 American colonies. It features one station for each colony (K2A–K2M) and three bonus stations: WM3PEN (Philadelphia), GB13COL (England), and TM13COL (France), representing their historical roles in America's colonial period. The event allows ham radio operators and shortwave listeners (SWLs) to participate by making contacts with these stations.

The exchange for this event is: CALL SIGN, RS / RST, STATE / PROVINCE or COUNTRY

All HF bands will be in play, including the WARC bands, with the exception of 60 meters. Simplex on 2 meters and 6 meters is encouraged.

The special event callsign stations are on the east coast and, are very close to each other. It will be harder for these states to contact each other so, use of 40m-160m is encouraged.

All modes of operation may be represented - SSB, CW, RTTY, Digital, Etc. - The mode of operation is up to the individual colony state station.

Operators can choose to make a single contact with one station or attempt a Clean Sweep, contacting all 13 colony stations and the 3 bonus stations. Each station provides a special QSL card and a unique certificate each year. Participants can track stations using DX spotting networks such as DX Summit.

SATURDAY, JULY 18TH

RADIO DAY BY THE BAY 2026

LIVE! IN ALAMEDA

8-4PM
FREE EVENT!

2152 Central Ave.
Alameda

EVENT BENEFITING THE CALIFORNIA HISTORICAL RADIO SOCIETY

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• Hybrid SDR Configuration • Unparalleled 70 dB Max. Attenuation VC-Tune • New Generation Scope Display 3DSS • ABI (Active Band Indicator) & MPVD (Multi-Purpose VFO Outer Dial) • PC Remote Control Software to Expand the Operating Range • Includes External Power With Matching Front Speaker

FTDX10 | *HF/50MHz 100 W SDR Transceiver*

• Narrow Band and Direct Sampling SDR • Down Conversion, 9MHz IF Roofing Filters Produce Excellent Shape Factor • 5" Full-Color Touch Panel w/3D Spectrum Stream • High Speed Auto Antenna Tuner • Microphone Amplifier w/3-Stage Parametric Equalizer • Remote Operation w/optional LAN Unit (SCU-LAN10)

FT-991A | *HF/VHF/UHF All Mode Transceiver*

Real-time Spectrum Scope with Automatic Scope Control • Multi-color waterfall display • State of the art 32-bit Digital Signal Processing System • 3kHz Roofing Filter for enhanced performance • 3.5 Inch Full Color TFT USB Capable • Internal Automatic Antenna Tuner • High Accuracy TCXO

FTDX101D | *HF + 6M Transceiver*

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FT-710 Aess | *HF/50MHz 100W SDR Transceiver*

• Unmatched SDR Receiving Performance • Band Pass Filters Dedicated for the Amateur Bands • High Res 4.3-inch TFT Color Touch Display • AESS: Acoustic Enhanced Speaker System with SP-40 For High-Fidelity Audio • Built-in High Speed Auto Antenna Tuner

FT-891 | *HF+50 MHz All Mode Mobile Transceiver*

Stable 100 Watt Output • 32-Bit IF DSP • Large Dot Matrix LCD Display with Quick Spectrum Scope • USB Port Allows Connection to a PC with a Single Cable • CAT Control, PTT/RTTY Control

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FTM-150RASP | *2M/430MHz FM True Dual Band Xcvr*

• Dual Receivers Allowing (V+V, U+U, V+U, U+V) Operation • 55W VHF & 50W UHF • Heavy Duty Heat Sink w/Funnel Air Convection Conductor • Front & Main Body Speaker for 6W High Quality Audio

FTM-510DRASP *C4FM/FM 144/430MHz Dual Band Xcvr*

• New Super-DX & ASP (Audio Digital Signal Processor Unit) • True Dual Bank Receive (V+V/U+U/V+U/U+V) • C4FM/C4FM Digital D-D Dual Receive • 2.4" High-Res Full-Color Touch-Panel Display • Wireless Operation Capability with Optional Bluetooth® Headset

FTX-1 Optima | *HF/50/144/430MHz All Mode SDR Xcvr*

• Detachable Field head For QRP SOTA/POTA Adventures • Attach Field Head to SPA-1 For 100 Watts (Base Operations) • SPA-1 Includes Internal HF Antenna Tuner • SSB, CW, AM, FM and C4FM Digital

FTX-1 Field | *HF/50/144/430MHz All Mode SDR Xcvr*

Compact QRP SOTA/POTA Xcvr (8.4"W, 3.5"H, 2.2"D) • 6W (5W for QRP) • Includes 6400mAh High Capacity Li-ion Battery • SSB, CW, AM, FM and C4FM Digital • 10W of Power w/External Power Supply • Upgradable to 100W with Purchase of SPA-1

FT-70DR *C4FM/FM 144/430MHz Xcvr*

• System Fusion Compatible • Large Front Speaker delivers 700 mW of Loud Audio Output • Automatic Mode Select detects C4FM or Fm Analog and Switches Accordingly • Huge 1,105 Channel Memory Capacity • External DC Jack for DC Supply and Battery Charging

FT-5DR

C4FM/FM 144/430 MHz Dual Band

• High-Res Full-Color Touch Screen TFT LCD Display • Easy Hands-Free Operation w/Built-In Bluetooth® Unit • Built-In High Precision GPS Antenna • 1200/9600bps APRS Data Communications • Supports Simultaneous C4FM Digital • Micro SD Card Slot

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• Big-Radio Features in a Compact Package • Wide-band Receiver Coverage for Catching All the Action! • 900-Channel, 24-Banks Memory System • Outdoor-Ready Features including Waterproof Rating • Smart Search Automatic 31-Channel Scanning/Loading System

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W6CX Nets

M-F 5:42 am Morning Muster 147.060+ 224.780- 441.325+

M-F 6:10am Commuter Net 147.060+ 224.780- 441.325+

Monday 8:00 pm SATERN Net 147.060+

Tuesday 7:30 pm Fat City 10 meter USB/CW Net 28.420 MHz

Tuesday 8:00pm Digital Practice Net 147.060+ 224.78- 441.325+

Wednesday 6:00pm American Legion Veteran's Net 147.060+

Wednesday 7:00 pm SKYWARN Net 147.060+

Wednesday 8:00pm Delta Amateur Radio Club Net 147.060+

Thursday 7:30 pm MDARC Club Net 147.060+

Thursday 8:00 pm Digital Amateur Television Net 147.060+

Club Voice Repeaters (FM unless otherwise noted)
147.060 MHz + / PL 100Hz
224.780 MHz - / PL 77Hz 441.325 MHz + / PL 100Hz
EchoLink: W6CX-R /133896, IRLP: 3057
DMR Repeater 144.925 offset plus 2.5 MHz color code 1
D-STAR 145.000 offset plus 2.5 MHz
https://w6cx.dstargateway.org/

Contra Costa County Emergency Communications Nets
Every Thursday

6:30 pm HF Countywide 3.893 MHz LSB

6:45 pm West County 145.110-- (82.5 PL)

7:00 pm Central County 145.680 Simplex

7:00 pm East County 146.535 Simplex

7:00 pm South County 147.480 Simplex
7:20 pm Countywide 145.490-- (107.2 PL)
or 147.735-- (107.2 PL)
or 145.410-- (107.2 PL)

Concord Auxiliary Radio Emergency Service (CARES)
Wednesday 8:00pm 147.405 Simplex

Digital Amateur Television Repeater

Digital ATV Output: 1244.500
Digital ATV Inputs: 1292.500, 1273.0, 917.0, 430.0
Analog ATV Input: 1270.000 FM (PL 192.8)

June 2026 and July 2026 Club Calendar

Friday June 19, 2026 **7:00pm MDARC General Meeting - Our Saviors Lutheran Church**
1035 Carol Lane, Lafayette

Friday/Saturday/Sunday June 26-28, 2026 ARRL Field Day, Olympic High School, 2730 Salvio Street, Concord (see page 7)

Saturday July 4, 2026 8:00am MDARC Technical Committee Meeting - **CANCELLED**

Monday July 13, 2026 6:30pm MDARC Board of Directors Meeting - VIA VIDEO CONFERENCE

Friday July 17, 2026 7:00pm MDARC General Meeting - Our Saviors Lutheran Church
1035 Carol Lane, Lafayette

APPENDIX

CONTAINS

Meeting Minutes

MDARC General Meeting Minutes April 17, 2026.

Held as a hybrid Zoom and in-person meeting.

1. Call to Order: The meeting was called to order at 7:00 pm by the MDARC president Larry Bradley KK6QPE.
a. Welcome to all: Larry KK6QPE welcomed all attendees.
b. Pledge of Allegiance: This was made by attendees.
c. Safety, Exits, Rest Rooms: Larry KK6QPE indicated the positions of the emergency exits and restrooms.
d. Acknowledge new members: Andy Comly W6WAE, Ericson Raduta KO6MYK and two other members were welcomed.
e. Acknowledge visitors: Carl Sutter KK6UQZ was welcomed.

2. Approval of Minutes from Last Meeting: Larry KK6QPE announced that the March minutes, that were previously sent out by the Secretary, were approved since he had not heard any suggestions for changes.

3. Officer Reports:
a. President: Larry Bradley KK6QPE had no report and asked if any board members or officers had any announcement. None were heard but Larry did announce that the financial report and the membership report were posted on the board at the back of the room.
b. ****Vice President: Mark Cloud W6SXA. c. ****Secretary: Brian KM6NGS.
d. Treasurer: Barbara Whysong K6WHY had nothing to add to her comments above.
e. ****Emergency Coordinator: Larry KI6LNB.

4. Directors at Large Reports: ****
Mike Warren W6MEW; Trevor Hall WA6JAU; Cal Vasquez K6VT; Margaret Campos AJ6LP.

5. Committee Reports – Standing:
a. ****Auction TBD b. ****Outreach Coordinator Dick Wade, WM6G c. ****Technical. Jim Tittle, K6SOE
d. ****Digital Media. Grant Bowman, K6CBK
e. Education and Training: Larry Bradley, KK6QPE announced that we are halfway through the General License course and that the next Technician Class will begin on June 16.
f. ****Pacificon Antonis Papatsaras AA6PP
g. ****Membership Jan Kulisek KM6NFC
h. Public Service: Larry Loomer KI6LNB announced the Berkeley Hills Road race on April 15, the MS walk on April 16, the Cancer Hope walk on May 16 and the Devil Mountain race on April 25.
i. **** Vehicle Committee MDARC-1. Jim Tittle, K6SOE
j. License Testing: One candidate showed up for testing since he thought that his license had expired. Some research showed that his license had in fact been renewed.
k. ****Trailer Committee. Mike Warren, W6MEW
l. Field Day: Larry Loomer KI6LNB announced that we have a contract for use of the parking lot, we are signed up with the school district and the portable toilet has been ordered. Julie Mah will take care of the food and Pete Harris will present the GOTA class.
m. ****Holiday Banquet. TBD n. ****Election Committee: TBD o. ****Program Committee.
**** not scheduled or unavailable

6. Unfinished Business: a. None **7. New Business:** b. None

8. Adjourn Business Meeting: Before adjourning the meeting Larry KK6QPE asked if anybody had anything for the good of the order. There was a brief discussion where Larry KK6QPE outlined some of the details of the upcoming Beacon exercise on April 30. He also asked Steve from the Martinez Radio Club to share some details of their participation. Steve announced that they will have two CERT teams in the field and that he plans to test interoperability with other cities in Contra Costa. Members from Pleasant hill, Lafayette and Martinez described some of their plans.

(continued on following page)

Larry KK6QPE stated that Concord has decided not to deploy CERT because they have a volunteer police service corps that reports to the emergency manager and that some CERT members who have HAM radio licenses will be involved.

There was a motion to end the business portion of the meeting which was adjourned at 7:26 pm.

9. Raffle Prizes:
Speaker: Jim Marchetti, KD7G
Topic: The State of Contra Costa County ARES
Respectfully submitted by:
Brian Lotter, KM6NGS
Secretary, on May 10, 2026.

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MDARC Board of Directors Meeting May 4, 2026

Held at Zoom online

1. Call to Order: The meeting was called to order at 7:00 pm by Larry Bradley KK6QPE after it was determined that there was a quorum for conducting Club business.

2. Roll Call: Attendees via Zoom screen shots:
Officers: Larry Bradley KK6QPE, President; Mark Cloud W6SXA, Vice President; Brian Lotter KM6NGS, Secretary; Barbara Whysong K6WHY, Treasurer; Trevor Hall WA6JAU, Director at Large.
Committee Chairs/Coordinator: None present. **Guests:** Dave Billeci WA6UHA.

3. Approval of Minutes from Last Meeting: The minutes were considered to be approved since they were circulated, as usual, and no objections or change proposals were received.

4. Adopt Tonight's Agenda: The agenda was adopted since no objections were heard.

5. Officer reports:
a. President Larry Bradley KK6QPE – Larry reported that he will be visiting his dad in Oregon from May 15 to May 21.
b. Vice-President Mark Cloud W6SXA – Had no report. c. Secretary Brian Lotter KM6NGS – Had no report
d. Treasurer Barbara Whysong K6WHY had no report since the bank statement is never ready this early in the month. Barbara also stated that the reports from Stripe and Square also take a few days to become available. She added that the tax reports have been filed with the feds and the state and she will be away from May 18 to 26.

6. Emergency Coordinator Report: Larry KI6LNB had no report.

7. Directors at large reports: Mike Warren W6MEW – Had no report. Trevor Hall WA6JAU – Had no report. Margaret Campos AJ6LP – Had no report. Cal Vasquez K6VT – Had no report.

8. Committee Reports:
a. Auction: No report was expected. b. Communications Trailer: Mike W6MEW had nothing to report.
c. Digital Media: Grant Bowman K6CBK had no report.
f. Education and Training: Larry KK6QPE reported that the General license course is past the half way point and that there will be no in-person presence at the Clayton Valley Presbyterian Church tomorrow.
g. Election Committee: No report was expected. h. Field Day: Larry KI6LNB did not submit a report.
i. Holiday Banquet/Dinner: No report was expected. j. License Testing: Larry KI6LNB did not submit a report.

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k. Membership: Jan KM6NFC submitted a report with the following numbers: Paying members 202, including family members 249. New members this year 18, renewals last 30 days 17, past due 99 and lifetime + honorary members 12.
l. Mesh Committee: Mike W6MEW had no report.
m. Outreach: No report was expected.
n. PACIFICON: Barbara reported that the ARRL had contacted her re "late payment" of the fee of $2250 for the event App. She confirmed with them that the payment is not due until July. Barbara is setting up a meeting with the new event manager at the Marriott and also a second meeting with the new Event Manager, the Sales Manager, Antonis, Grant and herself. She advised that she had asked them if we needed to find a new venue due to their financial situation and they assured her that they are financially sound.
o. Programs: Mark W6SXA reported that he is still looking for a speaker for the June meeting and wanted to know if MDARC does anything special for June, before Field Day. Larry KK6QPE said that we haven't historically and that he is free to choose any speaker. Mark announced that Nate Moore will speak on Cybersecurity for HAMS at the July meeting.
p. Public Service: There was no report from Larry KI6LNB but details of upcoming events can be found on the MDARC website.
q. Radio Lending Library: Cal K6VT had no report.
r. Rocky Ridge Repeater (Tech): Trevor WA6JAU reported that the multimode repeater is working and that they are planning to do some upgrades.
s. Scholarship: No report was expected.

9. Future Meetings:
General Meeting: 05/15/2026 will be a hybrid, in-person and online. Board Meeting 06/01/2026 on Zoom only.

10. Unfinished Business:
10.1 **Summary Log of Motions**: Brian KM6NGS reported that he had asked Trevor to test the Google Docs link, which he had sent to him, to see if it requires him to sign into his google account before being allowed access to the Board meeting Minutes folder which contains the file showing the log of motions. Since Trevor is not normally signed into his Gmail account, Google should demand that he sign into his Google account before granting him access. Brian KM6NGS reported that he had also sent the link to a friend, who is not associated with MDARC, and is usually signed into his Gmail account, then went to his computer to see what would happen if he clicked the link. The result was that Google said "you need access, request access or switch to an account with access. Trevor got the same result. Trevor still needs to click the link while signed into his Google account to see if he in fact gets access to the Board meeting minutes.
10.2 License Testing Donations: To be allocated only for Technician License Testing fees. $3500 was the initial donated amount. Current Balance: $ To be allocated to all three License Testing Fees $1500 was the initial donated amount Current Balance: $ Barbara did not have the numbers but requested that this item be removed from the agenda, Larry KK6QPE agreed and said that he will remove it.
10.3 Add verbiage to MDARC Registration section that indicates that an email address is optional, but without an email address, they will not receive a ballot to elect MDARC Board members and other important information from the Club: Larry KK6QPE stated that this is still pending. Larry KK6QPE asked Grant to take on this task and Grant agreed to do it. Grant had not confirmed that it has been done.
10.4 Has the webpage been updated?
How can members indicate that they prefer to be anonymous?
Barbara K6WHY stated that, for membership renewals it is possible to opt for anonymous donations. For the donations link on the MDARC website, Barbara has created new event in Constant Contact for people to indicate whether they prefer their donations to be anonymous or not and also a place to indicate whether they need a receipt for their tax returns. In order to do this Barbara would need to swap out the link from PayPal to Constant Contact. This was agreed to by the Board since no objections were heard. After further discussion, it was decided that we will provide an option, to remain anonymous or not, for each donation Barbara stated that she does not think that it has been done yet and will follow up with Grant.

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10.5 **Asset List: Inventory vs Asset?** Dollar cutoff amount. **STATUS REPORT**
TREASURER: Bylaws - "Shall maintain a true and complete account of all Club assets and liabilities including capital items and prepare formal written reports as of June 30 and December 31. These reports shall be published in the Club newsletter." This is still deferred until Barbara is ready to deal with it.
10.6 **ARRL has designated 2026 as the year of the club**
Leanna Figlewski, KC1RMP…Contributing Editor, QST
"ARRL has designated 2026 as the year of the club, recognizing that the growth and development of amateur radio rely on our vibrant community of radio clubs. With that, we are interested in featuring MDARC in one of the QST Club Spotlight columns for 2026. Below are some questions that focus on MDARC's journey and what makes them an active and successful club to answer at your convenience.
1. What are some ways the club remains active?
2. According to your website, MDARC is participating in 22 public service events this year, and last year they participated in nearly double that. How does the club manage this many volunteer events in a year?
3. What does the club consistently do well that helps to successfully get hams on the air?
4. Of all that the club does, what does leadership think it does best/is most successful with (this can be more than one thing)?
Please let me know if this is something that MDARC would be interested in."
Margaret AJ6LP said that after she had led the development of the document containing the material that we planned to submit to ARRL, she had turned it over to Larry KK6QPE. Larry confirmed that he had given ARRL access to the document and that they would use the material in the document to develop the article about MDARC. ARRL will submit the article that they develop for MDARC's review before publishing it.
Larry KK6QPE stated that Leanna Figlewski had requested more pictures of PACIFICON, that he had sent her a bunch and hasn't heard anything more from her yet.
10.7 **MDARC Shared Device and Company Asset Use Policy:** This is still pending with Barbara K6WHY.
10.8 **San Ramon Marriot financial concern:** Barbara reported that Management at the Marriott had assured her that they are doing just fine.

11 New Business:
11.1 There was no new business.

12 Good of the Order: Barbara stated that she is planning to send announcements about meetings and events to the Diablo Gazette unless there are any objections. No objections were heard.

13. Adjournment:
Trevor WA6JAU, seconded by Brian KM6NGS, proposed a motion to adjourn. The motion was carried unanimously. Meeting Adjourned at 7:27pm.

Respectfully submitted by
Brian Lotter KM6NGS
Secretary, May 23, 2026.
These meeting minutes were signed digitally due to the digital meeting